

EMB Core Publications with SBDR

1. Longerich S, Kwon YH, Tsai MS, Hlaing AS, Kupfer G, and Sung P. Regulation of FANCD2 and FANCI monoubiquitination by their interaction and by DNA. *Nucleic Acids Res.* 42, 5667-5670 (2014).
2. Zhao Q, Saro D, Sachpatzidis A, Singh TR, Schlingman D, Zheng XF, Mack A, Tsai MS, Mochrie S, Regan L, Meetei AR, Sung P, Xiong Y. The MHF complex senses branched DNA by binding a pair of crossover DNA duplexes. *Nat Commun.* 5, 2987 (2014).
3. Shell SM, Hawkins EK, Tsai MS, Hlaing AS, Rizzo CJ, Chazin WJ. Xeroderma pigmentosum complementation group C protein (XPC) serves as a general sensor of damaged DNA. *DNA Repair (Amst).* 12, 947-53 (2013).
4. Della-Maria J, Hegde ML, McNeil DR, Matsumoto Y, Tsai MS, Ellenberger T, Wilson DM, Mitra S, and Tomkinson AE. The interaction between polynucleotide kinase phosphatase and the DNA repair protein XRCC1 is critical for repair of DNA alkylation damage and stable association at DNA damage sites. *J Biol Chem.* 287, 39233-39244 (2012).
5. Querol-Audi J, Yan C, Xu X, Tsutakawa SE, Tsai MS, Tainer JA, Cooper PK, Nogales E, and Ivanov I. Repair complexes of FEN1 endonuclease, DNA, and Rad9-Hus1-Rad1 are distinguished from their PCNA counterparts by functionally important stability. *Proc Natl Acad Sci U S A.* 109, 8528-8533 (2012).
6. Dunlop MH, Dray E, Zhao W, San Filippo J, Tsai MS, Leung SG, Schild D, Wiese C, and Sung P. Mechanistic insights into RAD51-associated protein 1 (RAD51AP1) action in homologous DNA repair. *J Biol Chem.* 287, 12343-12347 (2012).
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8. Della-Maria J, Zhou YI, Tsai MS, Kuhnlein J, Carney JP, Paull TT, and Tomkinson AE. Human Mre11/human Rad50/Nbs1 and DNA ligase IIIalpha/XRCC1 protein complexes act together in an alternative nonhomologous end joining pathway. *J Biol Chem.* 286, 33845-33853 (2011).
9. Trego KS, Chernikova SB, Davalos AR, Perry JJ, Finger LD, Ng C, Tsai MS, Yannone SM, Tainer JA, Campisi J, Cooper PK. The DNA repair endonuclease XPG interacts directly and functionally with the WRN helicase defected in Werner syndrome. *Cell Cycle.* 10, 1998-2007 (2011).
10. Dray E, Dunlop MH, Kauppi L, Filippo JS, Wiese C, Tsai MS, Begovic S, Schild D, Jaslin M, Keeney S, and Sung P. Molecular basis for enhancement of the meiotic DMC1 recombinase by RAD51 associated protein 1 (RAD51AP1). *Proc Natl Acad Sci U S A.* 108, 3560-3565 (2011).
11. Dray E, Etchin J, Wiese C, Saro D, Williams GJ, Hammel M, Yu X, Galkin VE, Liu D, Tsai MS, Sy SMH, Schild D, Egelman E, Chen J. & Sung P. Enhancement of the RAD51 recombinase by the tumor suppressor PALB2. *Nat Struct Mol Biol.* 17, 1255-1259 (2010).

12. Iyer RR, Pluciennik A, Genschel J, Tsai MS, Beese LS, and Modrich P. MutLalpha and PCNA share binding sites on MutSbeta. *J Biol Chem.* 285, 11730-11739 (2010).
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15. Bugni JM, Han J, Tsai MS, Hunter DJ & Samson LD. Genetic association and functional studies of major polymorphic variants of MGMT. *DNA Repair (Amst).* 6, 1116-1126 (2007).

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1. Couch FB, Bansbach CE, Driscoll R, Luzwick JW, Glick GG, Betous R, Carroll CM, Jung SY, Qin J, Cimprich KA, and Cortez D. ATR phosphorylates SMARCAL1 to prevent replication fork collapse. *Gene Dev.* 27, 1610-1623 (2013).
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3. Tseng Q, Orans J, Hast MA, Iyer RR, Changela A, Modrich PL, and Beese LS. Purification, crystallization and preliminary X-ray diffraction analysis of the human mismatch repair protein MutSbeta. *Acta Cryst. F*67, 947-952 (2011)
4. Orans J, McSweeney EA, Iyer RR, Hast MA, Hellinga HW, Modrich P, and Beese LS. Structures of human exonuclease I DNA complexes suggest a unified mechanism for nuclease family. *Cell.* 145, 212-223 (2011).
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